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History of bookkeeping and accounting

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Recommended Citation

Curry, Preston Edmond; Simon, Paul; and American Hotel Association of the United States and Canada. Depreciation Committee, "History of bookkeeping and accounting" (1920). *Individual and Corporate Publications*. 72.

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HISTORY OF
BOOKKEEPING
— AND —
ACCOUNTING

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Cincinnati, O.

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HISTORY OF BOOKKEEPING AND ACCOUNTING

It is not possible to state at just what period in history the science of bookkeeping originated. It had its beginning, no doubt when people began to live in communities which always tends to the development of industry and trade. When this stage of social and industrial life is developed in a community there is always a banding together for mutual protection, which results in some form of taxation. When collections and disbursements are made it is very necessary that some records be made. Some of the earlier records found seem to be largely relating to public records, as we would call them today.

These records are crude and, of course, very different from such records of today. This was due in a great part to the cumbersome and inadequate systems of notation as well as the lack of suitable material for such records. The first nations of which we have any authentic records that developed commercially were Babylon, Assyria and Egypt. The records discovered during the past few years in Babylon disclose that the firms of Egibi carried on business centuries before the birth of Christ. This was a banking firm and their transactions seemed to be varied and well attended. A carefully planned office at least four thousand years old has been found where numerous tablets with records of loans, deeds, mortgages, leases, etc., were placed carefully away in sealed jars.

Brown, in his writing on this subject, gives this account of this firm of bankers:

"The firm of Egibi carried on business from an unknown period to about the fourth century before Christ. The tablets recording their transactions vary in size from three-quarters of an inch by half an inch to nine inches by twelve. They are usually covered with writing on both sides, and sometimes on the edges as well. Many contain no date, and these, on examination, prove to be either rough memoranda, lists of objects of produce, or letters. The more important transactions were re-copied on larger tablets with great care and elaboration of details. These larger tablets usually contain impressions from cylinder seals, and nailmarks, which were considered to be a man's natural seal."

These countries south and east of the Mediterranean are at the present time giving up these "contract tablets" to the spade of the excavator and explorer which will, no doubt, furnish more light and information regarding these ancient but highly developed peoples. For thousands of years these tablets have been waiting on the shelves of offices and libraries to come forth and enlighten the world on the activities of these peoples.

HOW THEY WERE PREPARED

No doubt the convenience of clay of fine quality and unlimited quantity and the lack of better material was the cause of the records to be written on clay. The clay was molded and while damp the writing or engraving took place. They were then placed in the sun

or ovens to dry and then put away for reference. The most important records have been found in large receptacles made of clay and securely sealed. These clay tablets have astounded the world at the mercantile activity and enterprise of these long lost people. The records show contracts, lawsuits, wills, hiring, renting, inventories, sales and purchases of cattle, wheat, clothing, jewelry and various other transactions. It is very interesting to note that many of these instruments were sealed and witnessed. Of course, these statements of sales, etc., were written out it seems without any particular form or as we should record such transactions today. Some few of the bricks show forms very similar to our ledger ruling where accurate accounts seemed to have been kept from day to day, showing the offerings to the gods of the sun temple, charging the divinities for the day's sacrifices. These rulings are resembled somewhat on other brick, however, there seems to be no set uniformity. Although recovery of tablets which shows a discussion in a brief and fragmentary way of economics and methods of keeping the debits and credits of transactions gives some hopes of further discovery that may lead to the conclusion that some uniform method was being striven for among the merchants and leading thinkers. Scores of scholars are searching and striving to translate and piece together a complete history of the Mesopotamian section. Let us hope that more information is given us on the bookkeeping records of these ancient times.

EGYPT

The Egyptian records as far as we know were kept on papyrus with pens made from reed; their ink being red and black. As in most cases at this time the records pertain to the receipts and disbursements of the State. There was no systematic bookkeeping record attempted, however, a detailed record was made by these scribes who did all of the bookkeeping, auditing and rendering accounts. It seems that a good check on tax receipts, which was usually in the form of grain, was used by the Egyptians. The taxpayer, at the first entrance, was required to give a record of his tax payment, and when the grain was delivered to storage another complete record of the payment was made. It can readily be seen that these duplicate records afforded an excellent means of auditing which is an ideal way and would be hard to improve as a means of preventing fraud.

The Romans are said to have had a system of accounting more scientifically developed than any previous peoples. Banks were established, checks were used by the wealthy, budgets were made up for the needs of the state and for tax purposes. However, these records were completely destroyed with the decay of the Empire and their full development will likely never be known.

Without doubt the Persians, as well as others of these ancient times, developed some sort of bookkeeping records, however, there is little known about them. We do know of the development of excellent records in Greece which you will note correspond to our modern idea of publicity. These were engraved on stones and the public given free access to all records. A number of these stones may be seen in the British Museum. The inscriptions show various expenditures, including appropriation and payment of war expenses.

However, it should be noted that an examination has shown that all of these records were not classified and related, and bookkeeping in the sense that we know it was unknown at this time or about 1200 A. D.

ITALY

This brings us up to the beginning of modern commerce, which had its beginning in and around Venice. Books may be found in Venice which were kept by certain merchants, known as Donado Loranzo and Brothers, from 1406 to about 1430. These records are said to be remarkable for their neatness and progress in double entry bookkeeping, but these books do not show that scientific principles were followed in balancing and closing, yet this practice was not unknown. This was due in part to the cumbersome Roman numerals used at this time.

About the tenth century our present numerals appeared, which come from old Hindu forms of uncertain origin. They, of course, are known to us as the Arabic numerals from the fact that they were introduced into Europe by the Arabians. The numerals changed slowly and found much opposition where introduced. However, they proved more practical than others in use, which is evidenced by the fact that printed arithmetics began to appear, as well as bookkeeping texts, with much progress noted in recording of transactions where the arabic numerals were in use.

PRINTING

Printing was practiced by the Chinese 50 B. C. Their printing from engraved wooden blocks was slow and impractical, of course. Printing devices were developing, and as early as 1467 printing establishments were operating in Rome and as early as 1470 in Paris. We can easily see how bookkeeping as a science could have little development without the printing press.

It might be said that our history of double entry bookkeeping begins soon after the appearance of the printing press. In Venice in 1494 there appeared the first treatise on double entry bookkeeping. This did not appear as a sole treatise of this subject, but merely as a few chapters in a book called, "Everything About Arithmetic, Geometry and Proportion." The author, Pacioli, was a noted professor and scholar of his time. The book was not intended for instruction, but merely to give a summary of existing knowledge of mathematics and accounting as practiced in Venice. As Pacioli says, the only books used were the day book, journal and ledger.

The day book is described by him in great detail where he says everything relating to your affairs in any way must be written down. He also describes the Journal, where all items must be entered from day book, which are to be posted to the ledger. It seems that the rule we use for debiting and crediting was understood and accepted. He also says that this book should be kept with greater care than the memorandum book, and insists that references must be made to all inventories and day book. This Journal, as used at that time, did not have the debit and credit columns as we have at the present time, only one column was used, the debit and credit being designated by "per" indicating debtor and "A" indicating creditor. However, several columns were necessary to show the different kinds of money in use. Two slanting lines thus "/" was also used to separate the debits from the credits. The ledger is also described with instructions for posting. The ledger, though more like our Journal, which was used for many years later, was posted to as we use it now. Several columns, as were used in the journal, were necessary in the ledger to

record the different kinds of money in use. His instructions for balancing reads much like instructions in a modern text for making a trial balance. His instructions for preparing inventories is also worthy of a modern writer, at least many of his instructions and sayings could be used by accountants and teachers today with great advantage to themselves and others.

Numerous publications on bookkeeping appeared in Germany, France and Holland during the sixteenth century, but they were little more than the translations of Pacioli and other Italian writers.

ENGLISH

The earliest English accounting records, which dates back to the eleventh and twelfth centuries, is to be found in connection with the Royal Treasury or Exchequer. Of course, this had to do with the recording and collecting of the taxes for the Crown. From the Domesday Book, compiled by the order of William I, showing all taxable estates of the country. The sheriff would collect the taxes and report semi-annually to the Treasurer. When this report was made a record of the amount was made by notching a stick, half going to the sheriff and half to the treasurer. This stick was returned at the next payment as a receipt for future payments and had to agree with the treasurer's stick. Later these receipts were entered on parchment and were known as Pipe Rolls. These were made in triplicate, one being compiled by the treasurer, one by the clerk of the chancellor and the third by a special representative of the Crown. As can readily be seen, this afforded a good check and were drawn up with great care. These records grew into receipt and payment rolls with various minor records. These cumbersome records with the tally sticks continued through these many years and were discarded in 1826. In 1834 an act was passed abolishing this system and providing that all public moneys be paid into the bank of England.

The first publication in English on the subject of bookkeeping was a translation of Pacioli's writings on the subject in 1543 by Hugh Oldcastle. Several others appeared, but were nothing more than a reproduction of Pacioli or Oldcastle until the year 1636, when Richard Dafforne, an accountant and teacher, had published the *Merchants Mirror*, followed by the "Methodical Means to Obtain the Exquisite Art of Accountantship." Others appeared, but there was little progress or development of books used until the year 1789, when Benjamin Booth wrote "Complete System of Bookkeeping by Improved Mode of Double Entry." He gave in this book a series of transactions as they actually occurred in business. In the introduction Booth says, "It is surprising that in a commercial country like this there should not be one treatise on this subject, which, when applied to a large scale of business, can be reduced to practice." He states that his system as laid down is calculated to obviate every objection that can be made to double entry, even among Tradesmen and Manufacturers. He seems to be the first author recognizing other books of original entry than the Journal and daybook. He gave models and examples showing the use of the Cash Book, Bill Book, Invoice Book, Day Book, Sales Book, Journal, Ledger, etc. Evidently these books were in use at this time. However, the English methods of bookkeeping and the manner of teaching it during the seventeenth century would be rather tedious at this time. The publication on the subject at the

above date went into great detail, which are very commendable in many respects. The following poem suggests one method used to memorize the rule for debiting and crediting accounts:

In Brief,

The Owner, or the Owing thing,
Or what-so-ever comes to thee;
Upon the Left-hand see thou bring;
For there the same must placed be.

But

they unto whom thou doest owe,
Upon the Right let them be set;
Or what-so-e'er doth from thee go,
To place them there do not forget.

This rule given here does not differ materially from the rules we use today for determining debits and credits.

Soon after this excellent treatise on Double Entry by Booth there appeared a treatise in 1796 by Edward Thomas Jones, an accountant, condemning the Italian or Double Entry bookkeeping and arguing for the English System of Bookkeeping or Single Entry method. Jones made a spirited attack on the Double Entry method and among other things said that, "this system is capable of being converted into a cloak for the vilest statements that designing ingenuity can fabricate." Instead of driving the double entry out of use by business men this harsh attack of Jones' seemed to stimulate interest in the system which caused a study and comparison of them and resulted in the permanent establishment of the double entry system throughout the country.

However, Jones' book did accomplish more good, and it is interesting to note that he is the first author to suggest actual business practice to be taught pupils by advancing them capital and then for them to buy articles from their teacher, paying for the same not only in cash, but notes and drafts. Great stride was made during the nineteenth century, and especially the latter part. Various devices were now being used, among these were the card Ledger, Loose-leaf Ledger, Slip System and Special column books.

The use of the two column Journal instead of the one column was certainly a great improvement, and no doubt was the forerunner of the special column journal which later appeared. It was seen that it was unnecessary to post all accounts to the ledger daily, also that some items appearing most often did not need to be posted until the end of the month. Sales of merchandise was one of the first special columns to appear in the journal. This was used exclusively for sales and posted monthly. Soon columns were added for cash and purchases. This was certainly an improvement over the laborious method of writing all transactions in the day book, thence the posting of every debit and credit to the ledger. This classification of journal entries suggested the use of special books to take care of the items in the special column in the journal. Too, the columns had developed to such a point that the journal was getting larger and unwieldy. So out of this suggestion grew the Sales, Purchase Book, Cash Book,

Notes Books, etc. The first American text-book on bookkeeping was published in 1796 by William Mitchell. His use and illustration of the special column cash book in this publication was the first to recommend special columns for the Cash Book. These books made it necessary only to carry the classification farther, but made it possible in the now growing business to have special clerks for the different branch of the accounting which greatly facilitated the handling of transactions as well as the more ease of posting. As all books were not likely to be in use at once, the posting could be done as a book was not being used.

With the growth of business, the extension of credit and the development of bookkeeping the ledger had now become so bulky and unwieldy that it was most more than one man could handle. At first the ledger was merely alphabetically divided without the controlling account idea in view. This division was not practical, as it was found to be inconvenient in posting, as well as giving access to the financial affairs of the proprietors to all clerks and bookkeepers. The principle of segregation was carried one step farther with the development of the general ledger. In this book, then called the private ledger, was kept the accounts excepting those relating to the sales and purchases of merchandise. This made it possible to have a confidential man handle this private ledger. This was not altogether satisfactory as trial balances made from these combined ledgers gave much trouble. This, however, was soon solved by the controlling account. Separate ledgers were still used for accounts with persons, both debtors and creditors, with totals posted to the general ledger, where balances could be made and statements prepared without taking the items from the personal account ledgers. This ledger not only now became independent and self-balancing, but contained in these controlling accounts a gauge by which the accuracy of the work of others could be measured.

Today there are numerous ledgers, some strictly private which are controlled by general ledger accounts. There is today hardly a line of business but what many subsidiary ledgers may be found controlled by accounts on the general ledger. We have the cost ledgers controlled in manufacturing, as well as the personal account ledgers. In banks we have the depositors' accounts controlled in a similar manner, and so on, with the result of segregating, controlling, checking and dividing of labor. For subsidiary ledgers as described above the ledgers are usually loose-leaf or card ledgers. These make possible the transfer of closed accounts, retaining only those active accounts in the ledger. The card ledger has become very popular in some lines of business, and especially banking. Mr. J. A. Langstroth, a banker in San Francisco, introduced the use of cards for ledgers in 1889, and since that time have found much favor with bankers. Cards are also very popular for other records than ledger accounts, such as insurance, continuous inventories, unfilled orders, maturing notes, etc.

So from the single column journal described by Pacioli in 1494, we have numerous books, among them the Cash Book, Sales Book, Purchase Book, Voucher Register, Note Registers, and many special ruled books for financial institutions, all based on the journal, and each devised with the twentieth century idea of the division of labor which is a saver of time, increases accuracy and gives more ready information to the proprietor.

MODERN BUSINESS EDUCATION

The rapid development of bookkeeping and accounting during the twentieth century is due in a great measure to the growth and development of business education. Business education today is understood to include all education which prepares one specifically for a business career. It is readily seen this preparation has as its foundation the study of the subject of bookkeeping. The recognition of this branch of education was neglected for many years and was opposed strenuously early in the twentieth century. Centuries ago no doubt, there was little argument for the study of business, for at that time the transaction of business was a simple matter. Today with our complex business organization and highly developed commercial life it is deemed worthy of study. Educators not only opposed this business training, but many business men as well; in fact, educational ideals and those of business were regarded as directly opposed. Many things were said and done by both sides of the argument with much detriment to both, but today there is little opposition and very much commendation to business education. Figures can be given which are sufficient proof to show that commercial education has grown to meet a real need and urgent demand.

There were private schools in Europe of a tutoring nature which taught the subject of bookkeeping before the private schools of the United States began. It is not possible to state the exact date the first private schools opened, but James Bennett, an accountant of New York, conducted a private school in which he taught bookkeeping, and R. M. Bartlett of Philadelphia, who opened a school in that city in 1843, were the pioneers in the private business school field. Other early schools teaching principally bookkeeping were opened by Peter Duff of Pittsburgh, George N. Comer of Boston, and Jonathan Jones of St. Louis. Most of these founders were bookkeepers and accountants and saw the real need of training whereby young men and women might be trained to take the place of the apprenticeship idea. The attendance in these private schools grew rapidly. No further argument is necessary to show that they were in demand and were filling a public need.

About 1885 a number of public high schools began offering two year business courses. It was not until after 1890, however, that the public schools made a serious attempt to give business training. Much of the antagonism of the previous years now began to give away. In 1898 the Central High School of Philadelphia founded a separate commercial high school. Soon after the High School of Commerce of New York was opened, others followed in all large cities throughout the country. These High Schools gave courses which were quite an improvement over the private schools of this time, as the pupils were kept for a much longer period. These business courses given in the High Schools became so popular that today the business department is one of the largest in many of the high schools.

About the time the business departments were being given a place in the public high schools a number of the universities were now offering courses in higher business education. The Wharton School of Finance and Commerce in the University of Pennsylvania was opened in 1881. This was the only University to offer the higher business training until about twenty years later. The first or second

year of the twentieth century saw many of the large Universities, the first being the University of New York, Dartmouth College, University of Chicago, offering courses in commercial training. These were followed by the State Universities of California, Wisconsin, Michigan, Illinois, until today practically all of the large Universities offer four years of training intended to prepare men and women for business careers. The enrollments in these departments is sufficient proof of their success. These schools would not have been opened had not business men demanded their product. It was seen that ideas could be taken from business men and taught as other subjects. Nearly all mechanical devices known to business are now brought into the school where the student becomes familiar with its operation before going into the office. Educated men in business were brought in as instructors and lecturers on business topics and this co-operation between business and educational institutions was the greatest step toward the development of modern accounting.

TEXTBOOKS

The great handicap during the earlier years of business education was the lack of textbooks. The most of the texts and material used as late as 1850, upon investigation, seem very crude as compared to our present texts and equipment. The Single Entry was given a very prominent place in the bookkeeping course. I have had the pleasure of looking through some neatly kept books that were used by a student in one of Pittsburgh's best private schools in 1851 and 1852. The left-hand pages or even pages were used for memoranda and the right or odd pages were used for the journal entries to be posted to the ledger. The work was well done, the same space being used on either page with red lines ruled across both and between all transactions. Many worthy texts began to appear on the market, and today the market may be said to be flooded with texts on all kinds, some good and some bad, on the subject of bookkeeping and accounting. Publishers must be given credit for their serious attempt to meet the demand and make practical the teaching of the science of bookkeeping. Some have gone to business houses and have published the actual transactions of business concerns, using the same business papers as were used by this concern in its daily transactions and have reproduced these in detail to be used and studied by the pupils. Texts on advanced accounting have been prepared by instructors and practicing accountants which gives to the learner the knowledge gained through years of experience.

MACHINERY AS AN AID

The latter part of the 19th century, with its rapid development in commerce and with its corresponding development of bookkeeping, at once caused a serious attempt on the part of many inventors to develop machines that would assist in carrying the burden of accounting computations. Ancient records show that bookkeepers of those early times deemed it necessary to have some mechanical device to aid them in their calculations, and especially in additions since the greater part of bookkeeping is adding. Some of these early devices for simple calculations were that of placing shells and pebbles on the ground to represent numerals. Also the fingers for reckoning was taught as early as 420 B. C., and some of the more educated were able to express larger amounts whereby the toes were used. However,

finger reckoning became highly developed among the Greeks in later years. Babylonians used an adding machine, composed of a board and pebbles, the pebbles being shifted about on the board to represent different values. This was thought to be a slight improvement over the method of marking lines on the sand or cutting notches in a stick. The Aztecs had their quipu, which was made up of twisted cords, composed of various colored strands, and from this hung many knotted strands. These knots represented numbers, and with many ingenious combinations could express any amounts.

The Greeks had a more scientific but complex system of calculating, whereby pebbles were laid according to a well defined system on cross lines, but the system of placing values being very complex. Later the Romans used a similar system, a board being strewn with sand, lines being drawn with fingers and values were represented by fingermarks in the dust at certain points. The Chinese have also had a calculating machine for many years, which they use today, called the "Abacus." This was an improvement over the Greek and Roman methods and consisted of wires strung on an open frame. These were strung horizontally and vertically, dividing the boards into two equal parts. On the short part were perforated pebbles, two on the short and five on the longer wires. The Chinese use these in similar devices today. Similar devices are used by the Japanese, known as "Soroban," and Russians, known as "tschotu," but the records do not show that either has been used for infringement of patent right.

Our Carbon Copy of today was in use in England about the tenth century. To prevent fraud a stick would be notched across two sides with the dates and names of the parties on the other sides. The stick was now split with a cleaver, one-half going to the creditor, the other half being kept by the debtor. To verify this in case of dispute the halves were placed together and of course was conclusive if they matched in every way. A great dispute grew out of disposing of the lumber when the tally system was abandoned in 1785. It was first proposed to give it to the poor as fuel, but some had a fear that a few of the dishonest might present their claims for payment, so after much discussion, which lasted for fifty years, this accumulation of accounting sticks was destroyed.

Little, if any, progress was made in the science of bookkeeping during the medieval times. As stated before, the Roman numerals which were very cumbersome were in use and little progress was made in accounting records until the Arabic numerals came into use. With the use of the Arabic system and the growth of commerce a tremendous amount of work was required to keep the records. A still greater effort about this time early in the seventeenth century was being made for mechanical aid to calculation. Napier produced the most efficient calculating machine up to this time and was known as the Napier's Rod. This device consisted of strips of bones, the edges being numbered in such a way that they could be brought into various positions effecting combinations, which aided greatly in some calculations. His invention is said to be the forerunner of the slide rule with its variations as used today by engineers, draftsmen, surveyors, etc.

The first serious attempt to produce a calculating machine was by Charles Babbage, about 1823. The Cambridge professor of Mathematics spent all of his own money and thousands of pounds granted by the British government. This project was discontinued for lack

of funds and the machine as abandoned may be seen in the Museum of Kings College.

A Swedish printer by the name of Scheutz, after reading of Babbage's attempt and failure, was inspired to produce a similar machine. He and his son completed a machine that would calculate, which proved that such a machine was a possibility, but never came into general use. Early in the nineteenth century an Alsatian, Thomas deColmar, developed a calculating machine which was a forerunner of our present day multiplying and dividing machine. About this time the typewriter was invented, which has proven of inestimable value as an office machine. The accounting department of today would be lost without it.

In the spring of 1890 the first adding machine that was really a success was put on the market in St. Louis. The inventor, William Seward Burroughs, a bank clerk, who had lost his health juggling figures in a bank, left the bank determined to produce a machine that would lift some of the burdens from the bookkeeper. After years of discouraging toil and the expenditure of his own funds and all that he could possibly borrow, this machine was placed on the market, which he knew at the time to be imperfect. After much persuasion, which most amounted to compulsion from the investors, the machines were placed in stores and banks for the first practical test. Of the first fifty machines completed only a few were placed on the market. The discouraging reports from those being used caused Burroughs and his associates to withhold others now completed until some defects were eliminated. The machine as it appeared then had its rows of keys and operated on the same principle as the adding machines of today. Of course, during the past few years these machines have been improved so that they not only add, divide, and subtract, but may be used for billing, making statements, trial balances, posting to ledger accounts, writing monthly statements, income tax reports, etc.

Other machines which may be said to aid greatly in bookkeeping records are the Hollerith Machine, Elliott-Fisher Bookkeeping Machines, Monroe Calculating Machine, The Merchant Calculator, the Comptometer, the Dalton Adding Machine, the Wales Adding Machine, the Multigraph, Mimeograph, Dictaphone, Addressograph, Check Writers, Protectograph and Photostat.

FILING

No phase of the Accounting Department of business concerns has had a more rapid development since about 1880 than the Filing Department. Of course, previous to this time some part of filing was attempted, but not on the systematic scale that it is being done at the present time. To give a history of file development would be a history of concerns who manufacture such equipment. We shall only give here a brief summary of use of such records in a modern accounting office.

Generally speaking, the proper maintenance of Filed Records are an aid to the accounting department insofar as they settle definitely all discrepancies in connection with any particular account. The account as it appears on the ledger, providing, of course, a purchase ledger is maintained, merely summarizes the transaction, and in order that definite information may be secured, it is necessary to refer to the Filed Records.

In the offices of smaller concerns where the business has not reached such proportions that it has become necessary to departmentize the work, all of the Filed Records are generally segregated in two or three cabinets. The main records, however, pertaining directly to the accounting department are the invoices and vouchers. In the offices of larger concerns these records are often maintained in the general file room, but on the other hand, some concerns have departmentized the Filing, and the records which refer strictly to accounting work are filed in the Accounting Department.

As a rule, the Filed Records are the most important records that are maintained in the office of any business institution, because they are the records of original entry, and should be carefully filed in such a manner that quick reference can be made to them to settle any future discrepancies or difficulties in connection with the conduct of the business. In the majority of instances, invoices should be filed alphabetically, because a natural reference is created when the records are filed in this manner. When you desire to locate an invoice in connection with any question that might come up, the natural inclination is to refer to same according to the name of the vendor. This would vary according to the influence that the maintenance of other records have in connection with the invoice. For example, some concerns in making payment of any particular invoice or invoices make use of the voucher, and often the original invoice is attached to the voucher and either filed numerically or alphabetically. In either case, where the voucher is filed in the manner as stated above, a voucher record is generally deemed advisable, and frequently on this voucher record the distribution is made to the proper account or accounts. Copies of orders are usually filed numerically with all correspondence and requisitions referring to such orders by numbers only.

There are other records which are maintained in different departments, such as Credit Reports and Correspondence which refer strictly to the manner in which the account is being paid that are invaluable, and each of these records must be maintained in a simple manner so that anyone in the organization may refer to same if necessary.

AUDITING

Auditing from its etymology (which is derived from *audire*, to hear) leads some writers to believe that audits were conducted orally. Nevertheless we find among the very earliest records of accounts auditing practiced by setting officials off against each other, making one a check against the honesty of the other. This was shown in the discussion of the Egyptian records where a copy was made of tribute received at one point and another record made when it was unloaded at another point. At the end of the day the records were compared for auditing purposes. Practically the same was practiced by the Babylonians. The Greeks had their board of audit, to whom all outgoing officials had to submit their accounts. It is said these were examined in great detail by the auditors. In Rome the Senate was the auditing board, to whom all had to render accounts upon leaving office. In discussing the English Exchequer the method of auditing the accounts was mentioned. The value of systematic audit seems to have been recognized from the very first, and by the thirteenth century the practice seems to have been definitely established in England. Many of the records at this time, especially those in connection with the Crown, shows they have been audited and approved. By the be-

ginning of the seventeenth century the professional auditor had come into existence. From this time dates the rise and progress of the Professional Accountants.

COST ACCOUNTING

In 1832 Charles Babbage in his book, "Economy of Manufacture," referred to the advisability of figuring Cost, but nothing was done to develop this very important phase of accounting until about fifty years later, or near the end of the nineteenth century. Cost Accounting was not in general use, however, until the twentieth century, and now we find Cost figured in many large concerns and practically all manufacturers in manufacturing plants. The early manufacturers reckoned their profits and losses on the *entérprise* as a whole. He did not seem to care whether any particular operation was a loss just so his whole operation showed a net profit. Recent agriculture reports show the illusion under which many farmers are working. These reports show how many of the farms, while as a whole are making a profit, yet certain crops and same kinds of stock are raised at a big loss. How simple it would be to show this if accurate Cost Records were kept. And today we find some of the more progressive farmers and stock raisers, the latter especially, keeping Cost Records. Some, no doubt, are crude, but it is a step in the right direction and will lead to improved conditions and great economic gain. It is highly important to know what the article or class of articles cost in order to scientifically compete with other concerns in similar business, as well as the aid such records give in analyzing manufacturing operation and affords a good means to check the efficiency of factory management. It was soon seen that the manufacturer who estimated his cost was overcome by his competitor who scientifically figured his cost. No progressive manufacturer of today is to be found without his Cost Records.

PROFESSIONAL ACCOUNTING

Scotland is said to be the home of the Chartered Accountant. It is claimed that Scotland had professional accountants as early as the middle of the seventeenth century, when George Watson being credited as the first professional accountant; however, at this early time some teachers of bookkeeping and writers designated themselves as accountants, and even some merchants were styled as accountants. George Watson acquired the reputation as a master in this line and held many important public positions, one of which was the accountant of the Bank of Scotland, and he was also engaged in private banking business. It was interesting to note that Edinburg in 1773 had listed in its directory seven practicing accountants, in 1805 there were seventeen listed in the same place. In 1853 the Institute of Accountants was founded in Edinburg and the following year it received its Royal Charter under the name of the Society of Accountants. Another Society was incorporated the following year in Glasgow. This Association of Chartered Accountants in England and the American Institute of Accountants in the United States organized in 1917 have done a great deal to raise the standard of ethics to the high level of today as compared with over a decade or two ago.

In England, as in Scotland, most of the early accounting was done by reachers of bookkeeping and mathematicians; however, in 1799 in a London directory we find the name of eleven accountants. In 1850

we find this number had increased to 264, 310 in 1860 and 467 in 1870. In 1911 there were over 1600. In Liverpool, Manchester, Bristol and other cities there were a large number of professional accountants to be found. It was not until about 1870 that the English accountants were incorporated as a body. In a petition to the parliament in 1878, asking that a bill be introduced for the incorporation of the institute of accountants, was found the following, "That the profession is a numerous one and their functions are great and increasing importance in respect of their employment in the capacity of liquidators in the winding up of companies, of receivers under degrees, of proceedings in bankruptcies or arrangements with creditors and in various positions of trust under courts of justice, as also in the auditing of the accounts of public companies, partnerships and otherwise."

Throughout the British Colonies and other European countries, as well as the countries of the new world, are found the professional accountant. It is interesting here to note that the legal recognition of professional accountancy was first made by South American Republics, the Court of Uruguay recognized the profession as early as 1825 and Argentine in 1836.

At this time, however, the accountancy field was very limited and the accountant was little more than a bookkeeper. In 1893 Charles Waldo Haskins and Elijah Wall Sells, who had been employed as bookkeepers for several large business and financial institutions, were employed by the Federal Government to revise the accounting system of the National Government. Their work here marked them as men of unusual ability. The commission appointed to carry on this work and who observed the work of these gentlemen declared in the United States Senate that "these experts are men highly competent, experienced and skillful." Their recommendations to the commission were adopted and at once put into operation, which was found to save the government more than \$600,000.00 annually, besides giving much data for improving the service of the Government. This was the first professional accounting in connection with the National Government.

This Association of Messrs. Haskins and Sells at Washington led to the opening of offices in New York in 1895 for the purpose of doing professional accounting. From the beginning their services were in demand, and by 1900 their accounting force included sixty accountants and about forty clerks. Through the honest efforts of these two skilled accountants great progress was made in the development and practice of the science of Accounting.

Mr. Haskins recognized the need of educational training for the accountant to raise him to a higher level. He saw the possibility of such a training in the institutions of advanced education. He spent much time consulting educators on this subject. After much effort the Chancellor of the New York University became interested in his plan and the School of Commerce, Accounts and Finance was opened, which is today the leading school of this kind.

Other Universities have followed and degrees are given for this work which prepare for the Certified Public Accountant examination. The first state to pass a law recognizing the Certified Public Accountant was the Public Accountant's Act in New York in 1896. Other states have followed until practically every state in the Union has such a law with a board of examiners who grant the degree of Certified Public Accountant to those who qualify.

4000 B. C.

"The records discovered during the past few years in Babylon disclose that the firms of Egibi carried on business centuries before the birth of Christ. A carefully planned office, at least four thousand years old, has been found where numerous tablets with records of loans, deeds, mortgages, leases, etc., were placed carefully away in sealed jars."—Curry.

Books may be found in Venice, Italy, which were kept by certain merchants known as Donado Loranzo & Bros. from 1406 to about 1430. These records are said to be remarkable for their neatness and progress in DOUBLE ENTRY BOOKKEEPING, but these books do not show that scientific principles were followed in balancing and closing.

In Venice, in 1494, there appeared the first treatise on DOUBLE ENTRY BOOKKEEPING. The only books used were the Day Book, Journal and Ledger.

The first publication in English on the subject of book-keeping appeared in 1543.

1920 A. D.

Today we have the tenth edition of "20th Century Book-keeping and Accounting," by James W. Baker, who in 1904 wrote 20th Century Bookkeeping and Office Practice.

This edition of this text is the result of centuries of progress in the method of recording business transactions. It is based on scientific principles. More than a million students in the United States have used the previous editions of this text as the basis of their commercial training. More than two hundred firms of accountants and auditors and thousands of commercial teachers in public and private schools were freely consulted in its compilation. **Its popularity is based on merit.**

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